

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

**PERMIT TO OPERATE A SEPTAGE LAND
APPLICATION SITE**

Gaither Barnes Septic Tank Service
Gaither Barnes
2104 Daniels Lumber Road
Taylorsville, NC 28681

is hereby issued a permit to operate Septage Land Application Site with permit #SLAS-02-01 located on SR#1415 in Alexander County in approximate position 35.94713° N latitude and -81.16885° W longitude. The site is to be operated in accordance with 15A NCAC 13B .0800 Septage Management, the information stated in the approved application, and the conditions of this permit. The unauthorized disposal of any liquid or solid wastes other than those specified in the conditions of this permit will be considered a violation of the conditions of this permit. Failure to comply with the conditions of this permit may result in permit suspension, permit revocation, action for injunctive relief, administrative penalties, or other remedies as provided in G.S. 130A, Article 1., Part 2.

This permit shall be reviewed annually to determine if soil test results and management activities are in compliance with the Septage Management Rules and the conditions of this permit. Modifications, where necessary, shall be made in accordance with rules in affect at the time of review.

Date Issued

12/6/11



Michael E. Scott, Chief
Solid Waste Section

Operator: Gaither Barnes
SLAS# 02-01
County: Alexander

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Permit Conditions:

1. This permit shall become voidable if the soils fail to adequately assimilate the septage and shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards of the surface waters and ground waters.
2. This site shall be operated and maintained in accordance with the nutrient management plan submitted by Gaither Barnes and approved by the Division. **The 7.5 acre site shall remain established in fescue and is managed as one field.** As per the nutrient management plan submitted by Gaither Barnes, no grazing shall occur on the disposal field at any time and no septage land application shall occur in the months of April, July and October. The fescue shall be harvested as hay in May, August and November of each year. **The 30 day waiting period between the last application of septage and the harvest of the crop shall be maintained.** The 30-day waiting period between the last application of septage and the harvest of a crop shall be met by taking all septage to the Town of Taylorsville Wastewater Treatment Plant during the 30 days before each harvest. All discharges shall be at locations on the site consistent with the crop rotation in the approved plan.
3. This site shall be operated and maintained in accordance with the erosion and runoff control plan submitted by Gaither Barnes and approved by the Division. A 50-foot buffer of fescue shall remain around the perimeter of the permitted site. Any site improvements noted in the plan must be installed within 30 days of plan approval. The site shall be operated and erosion and runoff control measures maintained in such a manner as to prevent migration of wastes off of the designated waste receiving site. The installation of groundwater monitoring wells shall be required as deemed necessary by the Division.
4. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state and federal) which have jurisdiction. It is the responsibility of the permittee to be in compliance with the requirements of 40 CFR 503.
5. This permit may be modified or reissued to incorporate any conditions, limitations and monitoring requirements of the Division of Waste Management deems necessary to adequately protect the environment and public health.
6. **This site is only permitted for the land application of domestic septage.** Domestic septage pH shall be raised to 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 30 minutes prior to land application.
7. **This site contains approximately 7.5 acres that are available for septage land application.** The maximum annual application rate shall be 50,000 gallons per acre per year, for a total maximum annual application rate of 375,000 gallons. This application rate assumes equal septage distribution, on an annual basis, over the permitted area. Monthly septage applications shall not exceed the monthly relative application rates given in the approved nutrient management plan for the site.
8. An approved above ground septage detention system with a minimum design capacity of 7,211 gallons shall be available prior to operation of this site unless an approved wastewater treatment plant is available for use during periods of adverse weather. The storage capacity may be adjusted if it is demonstrated during the operation of the site that this volume of storage is inappropriate.

Operator: Gaither Barnes
SLAS: 02-01
County: Alexander

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9. Only the area designated on the attached site map(s) shall be utilized for septage disposal. Each load of septage discharged at the site shall be distributed from a moving vehicle in such a manner as to have no standing water when the discharge is complete. Septage shall not be applied during periods of high soil moisture.
10. Septage shall not be applied during any precipitation event, or if there is standing water on the soil surface, if the soil surface is frozen, or if the soil surface is snow covered. The Permittee shall consider pending weather conditions when making the decision to land apply in order to prevent any discharge of septage outside of the permitted boundary.
11. Septage applications that will result in ruts greater than three inches in the soil surface are prohibited.
12. Any discharge of septage outside of the permitted boundaries via runoff, aerial drift, etc. is prohibited.
13. This permit shall become void unless the land application activities are carried out in accordance with the conditions of this permit and in the manner approved by this Division. No one other than the permittee shall discharge septage at this site without prior appropriate notification and written approval of the Division of Waste Management.
14. Prior to any transfer of this land, a notice shall be given to the new owner that gives full details of the materials applied or incorporated at this site. The Division shall be notified prior to site closure.
15. **This permit shall expire on December 6, 2016.** Modifications, when necessary, shall be made in accordance with the rules in effect at the time of renewal. An application for permit renewal shall be submitted at least ninety (90) days prior to the permit renewal date. A septage application log for the period of time this permit was valid shall be submitted along with an application for permit renewal or modification. The information required in the log is described in Rule 15A NCAC 13B .0838(e)(1) of the NC Septage Management Rules and 40 CFR Part 503.17(b) of the Federal Register. This permit is non-transferable.
16. Records shall be kept in accordance with 40 CFR 503.17(b). These records shall be made available to a representative of the Division of Waste Management upon request.
17. Any duly authorized officer, employee, or representative of the Division of Waste Management may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the disposal site and facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be kept under the conditions of this permit; or may obtain samples of groundwater, surface water, or leachate.
18. Field separations in the nutrient management plan and all pertinent setbacks shall be clearly located on the site. Boundaries of the permitted septage land application fields shall be clearly marked on the ground.
19. The areas which can be used for land application of septage shall be maintained at least 500 feet from any existing wells, residences, places of business, or places of public assembly. Septage shall not be disposed of within 50 feet of any property line, within 100 feet of any ditch or within 200 feet of any surface water.



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 6, 2011

Mr. Gaither Barnes
Gaither Barnes Septic Tank Service
2104 Daniels Lumber Road
Taylorsville, NC 28681

**RE: SLAS permit renewal
Gaither Barnes Septic Tank Service
SLAS-02-01
SR#1415 in Alexander County**

Dear Mr. Barnes:

The NC Division of Waste Management has reviewed your application for a septage land application site in Alexander County. Your application has been approved and your permit (#SLAS-02-01) is enclosed. If you have any questions about your permit, we'll need the number in order to answer your questions.

Please read all of your permit conditions carefully. Your nutrient management and soil erosion and runoff control plans have been included in your permit's conditions. In particular, review Permit Condition 12, which states you need to submit septage application logs for your site in order to renew your permit. These logs need to cover the entire time your current permit is valid. For details on the information you should include, consult the NC Septage Management Rule 15A NCAC 13B .0838(e)(1) and the Federal register's 40CFR Part 503.17 (b). This permit condition also states that this permit is valid until December 6, 2016. If you have any questions, please ask for assistance as rule violations could expose you to administrative penalties.

Please note that to land apply industrial or commercial septage at a permitted septage disposal site you must have prior approval from the NC Division of Waste Management. The waste must be sampled prior to being removed from the system. Generally, the Division will request that you have a waste analysis run on septage from each commercial or industrial septage generator before that type of septage is approved for land application.

Use of a land application site or septage detention or treatment facility that is not permitted may result in administrative penalties up to \$15,000 per violation in accordance with NC General Statute 130A-22.

Please call me at (910) 433-3352 or Mike Scott at (919) 707-8246 if you have any questions.

Sincerely,



Connie Wylie, Soil Scientist
Composting & Land Application Branch

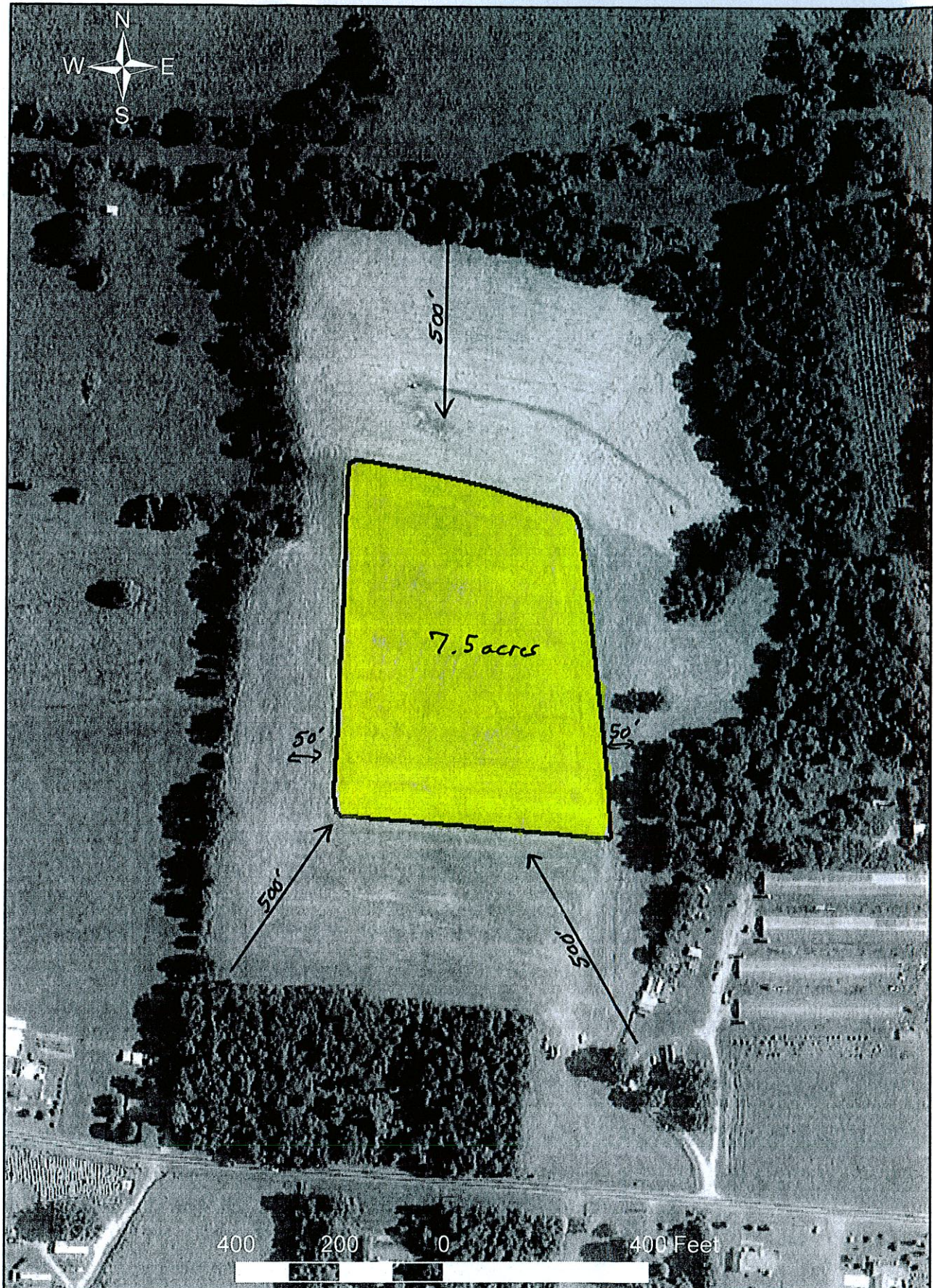
Enclosures

cc: Alexander County Health Department

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SLAS-02-01

35.94713° N latitude
-81.16885° W longitude



NAD 1983, NC State Plane (FIPS 3200)

Source: 2010 NAIP Color Imagery, NCDA; site boundary, NC DENR Division of Waste Management.

Map created by NC DENR Division of Waste Management, Compost and Land Application Branch for permitting purposes only.
crc. March 2011

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APPLICATION FOR A PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
401 Oberlin Rd., Ste. 150, Raleigh, N.C. 27605



1. Site and Operator Information

1. Applicant Gaither Barnes Septic Tank Service
Address 2104 Daniels Lumber Rd.
Taylorsville, NC 28681
Phone (828) 632-8459 / 632-6218 or 308-1331

2. Contact person for site operation (if different from applicant): Same
Title or position _____ Phone _____
Address _____

3. Landowner Same
Address _____

4. Site Location: County Alexander State Road Number 1415 SR
Directions to site: Jay Burke Road. latitude 35-56-60
longitude 81-10-06

5. Indicate whether request is: new _____ renewal ☒ modification _____

For a permit renewal or modification, provide the following information:

Existing site permit number: SLAS-02-01 permit expiration date: 3-5-2011

6. Number of acres meeting the requirements of the N.C. Septage Management Rules: 6 acres

7. Substances other than septage or grease trap pumpings previously disposed of on the site:
(a) None ☒, or (b) Attach a list indicating other substances, the amounts discharged, and the dates of discharge.

8. Attach written, notarized landowner authorization to operate a septage disposal site signed by the landowner (if the permit applicant does not own the property). *If a corporation owns the land use a corporate landowner authorization form. If limited liability company owns the land, use a limited liability company landowner authorization form.*

9. Attach site evaluation report, including aerial photograph and soil analysis with metals results, unless the Division prepared the report.

10. Attach a vicinity map (county road map showing site location).

(over)

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II. Site Management Information:

The following information shall be included with the application form:

1. Nutrient Management Plan
2. Soil Erosion and Runoff Control Plan
- ✓ 3. Alternative plan for disposal (detention facility permit number or wastewater treatment plant authorization): NC 0026271. Alexander Co. Waste water treatment Plant.
4. Types of septage proposed to be discharged at the site (check all that apply):
 - (a) Domestic septage pumped from septic tanks ✓
 - (b) Grease trap pumpings _____
 - (c) Portable toilet waste _____
 - (d) Commercial / Industrial septage _____
- ✓ 5. Proposed treatment method of each type of septage to be land applied (use additional paper to explain if necessary): 50 lbs Hydrated lime for each 1000 gals.
- ✓ 6. Proposed method of applying septage to land, including septage distribution plan if required * (use additional paper to explain if necessary): pumped in a pumper truck that sprays out back & about 8' to 10' on each side page 4 # E.
- ✓ 7. Demonstration from the appropriate state or federal government agency that the land application site complies with the Endangered Species Law ** or if any part of the site specified is not agricultural land (use additional paper to explain if necessary): I don't think this applies.

III. Certification

I hereby certify that:

1. The information provided on this application is true, complete, and correct to the best of my knowledge.
2. I have read and understand the N.C. Septage Management Rules, and
3. I am aware of the potential consequences, including penalties and permit revocation, for failing to follow all applicable rules and the conditions of a Septage Land Application Site permit.

✓ Gaither Barnes
Signature***

2-19-2011
Date

Gaither Barnes
Print name

Owner
Title

Note: This application will not be reviewed until all parts of the application are complete.

* Refer to Section .0821(e) of the N.C. Septage Management Rules.

** Refer to Section .0821(g) of the N.C. Septage Management Rules.

***Signature of company official required.

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ATTACHMENT TO APPLICATION

5. Proposed treatment method of each type of septage to be land applied.
Enough hydrated lime will be added to the domestic septage to raise the pH to 12 or higher and remain at pH 12 or higher for a half hour prior to land application.
All septage shall be at pH 12 or higher for land application to occur.
7. Demonstration from the appropriate state or federal government agency that the land application site complies with the Endangered Species Law.
The site is agriculture and therefore exempt.

Gaither Barnes
Signature

9-15-2011
Date

NUTRIENT MANAGEMENT PLAN FOR SEPTAGE APPLICATION TO TALL FESCUE

Gaither Barnes Grading and Hauling

Fescue

A. General Information

1. One site designated as permit number 02-01 has been permitted for application of septage.
2. Periodic sampling (at least 1/year) of the septage will be conducted for waste analysis.
3. The site which is permitted as 02-01 contains ~~X~~ ^{7.5} acres. {one field}
4. The septage disposal site is established in a good stand of fescue.
5. The dominant soil series at this site is cecil sandy clay loam.
6. Septage will not be applied where the site is untrafficable (untrafficable is defined as soil that will allow a loaded truck to leave a depression in sod greater than 3 inches in depth).
7. Septage will be spread over grass land in field 02-01 on a daily basis as weather permits (not raining, snowing, or when the ground is either saturated or frozen). On days when weather does not permit spreading septage on fescue, disposal of septage will be discharged at the Town of Taylorsville wastewater treatment plant.

B. Crops to be grown and approximate planting times: The field (02-01) consists of ~~X~~ ^{7.5} acres and is already established in a good stand of tall fescue. This field will be in tall fescue permanently.

C. Nitrogen needs for crops grown:

R.Y.E. = Realistic Yield Expectations
N.App. Rate + Suggested N. app. rate based on R.Y.E. for soil type

Crop	R.Y.E.	N. Application Rate
Field Tall Fescue (02-01) (cut for hay)	4.0 ton/Ac x	45 lbs. N/dry ton = 180 lbs N/Ac

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D. Relative Application Rate For Field 02-01

<u>Month</u>		6 ^{7.5} Ac. (cut for hay)
January	Low	7500
February	Low	7500
March	Med	15000
April	None	Cut for Hay on or about May 1
May	Med	15000
June	Med	15000
July	None	Cut for hay on or about Aug. 1
August	Med	15000
September	Med	15000
October	None	Cut for hay on or about Nov. 1
November	Low	7500
December	Low	7500

None = 0 gallons/Ac = $\frac{6 \text{ ac.}}{0}$ Low = 1250 gal/Ac = $\frac{6 \text{ ac.}}{7500 \text{ gal}}$
 Medium = 2500 gal/Ac = 15000 gal High = 5000 gal/Ac = 20,000 gal

Note: Cumulative application rate is not to exceed the permitted application rate. According to R.Y.E. for fescue cut for hay and application restrictions, it would be possible to apply 300,000 gallons of septage to site 02-01. However, Mr. Barnes only pumps approximately 105,000 gallons/year. The relative application rate in the table above will allow 105,000 gallons/year to be applied if need be.

E. Application Method: The preceding information is based on septage being evenly applied over the entire permitted site by being spread from the pump truck while driving across the field.

F. Additional Fertility Requirements: With the relative application rate and potential to apply 105,000 gallons to the ~~6~~^{7.5} acre site. The Nitrogen supplied from septage is:

Field 02-01: ~~6~~^{7.5} acres --- 105,000 gallons applied
 Nitrogen required = 180 lbs N/Ac
 180 - 45.5 lbs N supplied = 134.5 lbs N/Ac needed

800 lbs/Ac 17-17-17 N-P-K in split applications with 400 lbs applied in February and 400 lbs applied in November after last cutting of hay.

Soil samples will be taken on a yearly basis to monitor N-P-K levels in the soil

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G. Harvest of the crops and their use:

1. The fescue from the permitted site 02-01 will be cut and baled for hay on or about May 1, August 1, and November 1.
2. A 30-day waiting period will be observed between the last application of septage and harvest. There will be no septage applied to the field during the months of April, July, and October to allow for this 30-day waiting period.
3. The hay will be fed to beef cattle.

SOIL EROSION AND RUNOFF CONTROL PLAN

Given that the slopes on this site do not exceed five percent, a 50 foot buffer of established fescue should suffice to prevent septage waste from migrating off the fields.

Submitted by Grithr Baines Date: 2-19-2011
Site Operator

Plan preparation assisted by: Yanick L. Smith Date: 2/18/11
Address: PO Box 97, Yadkinville, NC 27055
Phone: (336) 679-2061

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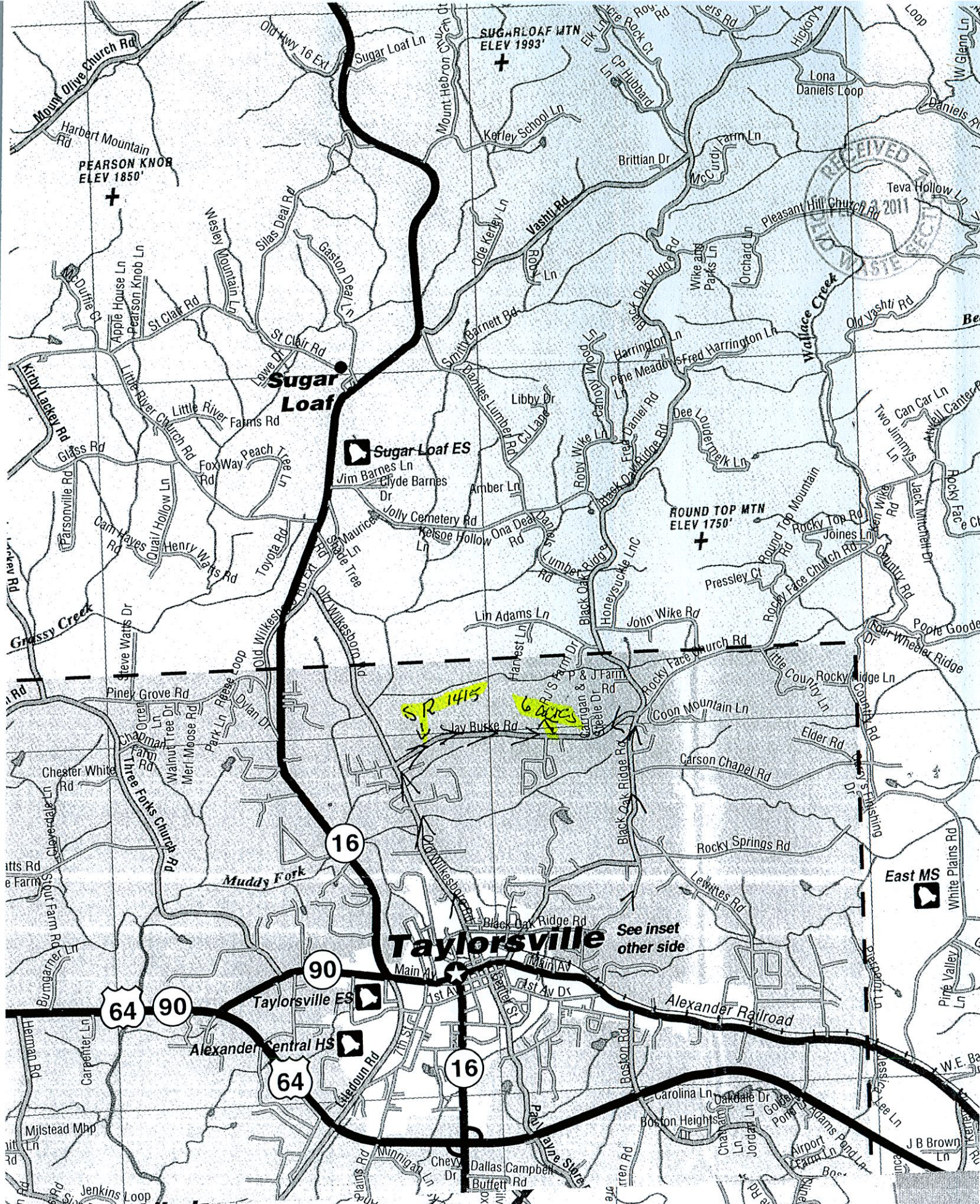
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ATTACHMENT TO NUTRIENT MANAGEMENT PLAN

Areas that develop with less than 80% groundcover by fescue will be reseeded with fescue at a rate of 50 lbs/acre during the months of March 2012.

Gaither Barnes
Signature

9-15-2011
Date



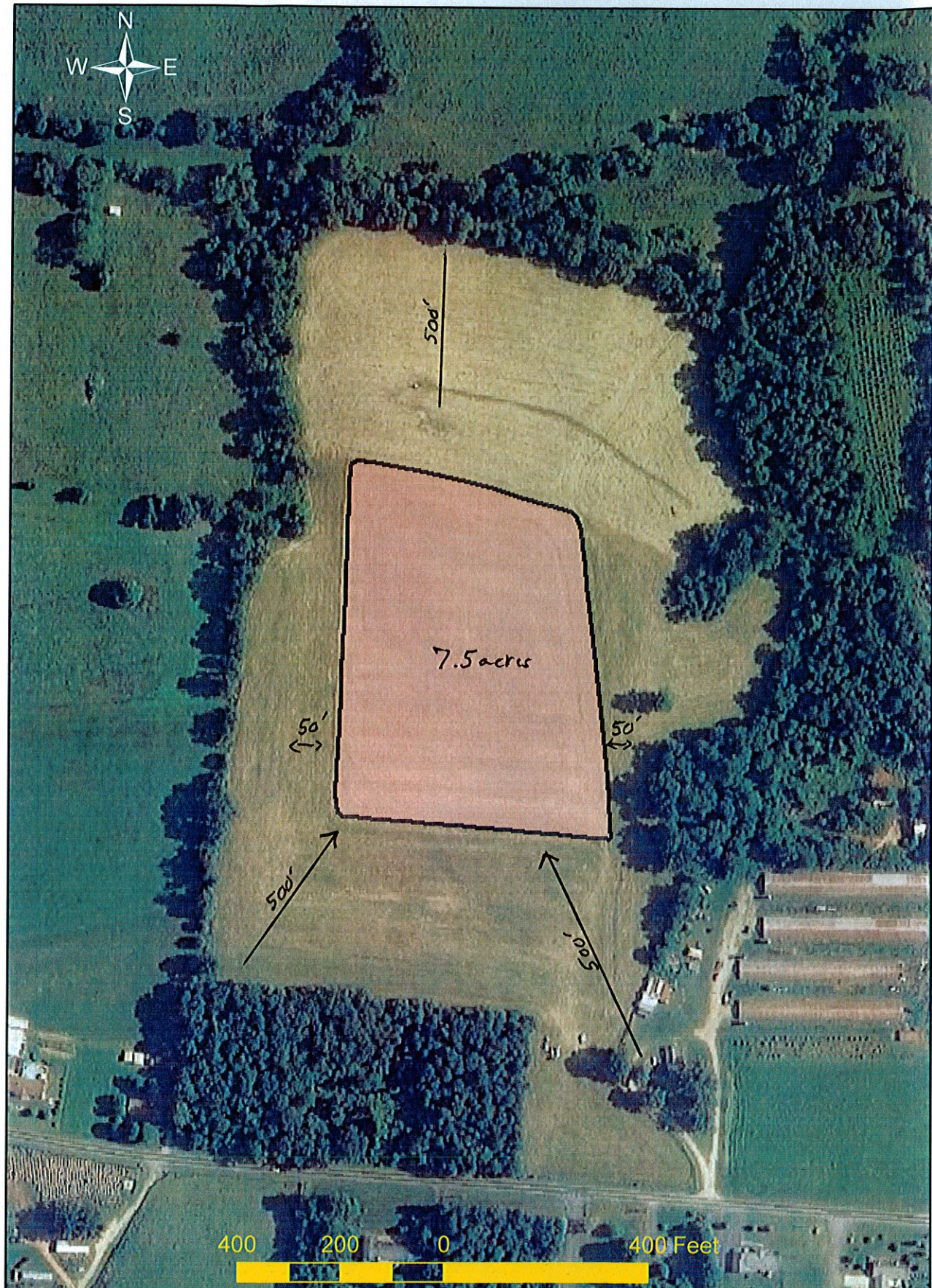
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SLAS-02-01

35.94713° N latitude
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NAD 1983, NC State Plane (FIPS 3200)

Source: 2010 NAIP Color Imagery, NCDA; site boundary, NC DENR Division of Waste Management.

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crc, March 2011